c) PFS :

$$\sum \{\mathcal{T}_S\}_A = \{0\} \quad 1$$

$$\Rightarrow \left\{\begin{matrix}0\\Y_B\\Z_B\end{matrix}\right\}_A + \left\{\begin{matrix}0\\-200\,Z_B\\200\,Y_B\end{matrix}\right\}_A + \left\{\begin{matrix}1000\\-500\\E_z\end{matrix}\right\}_A + \left\{\begin{matrix}60\,E_z\\100\,E_z\\-11.10^4\end{matrix}\right\}_A + \left\{\begin{matrix}X_A\\Y_A\\Z_A\end{matrix}\right\}_A + \left\{\begin{matrix}0\\0\\0\end{matrix}\right\}_A + \left\{\begin{matrix}100.10^3\\0\\0\end{matrix}\right\}_A = \{0\}$$

$$\Rightarrow \begin{cases} X_A + 0 + 1000 + 0 = 0 & (1) \quad 1 \\ Y_A + Y_B - 500 + 0 = 0 & (2) \quad 1 \\ Z_A + Z_B + E_z + 0 = 0 & (3) \quad 1 \end{cases}$$

$$\begin{cases} 0 + 0 + 60\,E_z + 100.10^3 = 0 & (4) \quad 1 \\ 0 - 200\,Z_B + 100\,E_z + 0 = 0 & (5) \quad 1 \\ 0 + 200\,Y_B - 11.10^4 + 0 = 0 & (6) \quad 1 \end{cases}$$

d) Calculer E_z

l'eq 4 $\Rightarrow$ $E_z = \dfrac{-100.10^3}{60} = -\dfrac{10.10^3}{6}\,N$

$$\boxed{E_z = -1666,67\,N} \quad 1,5.$$

(10 | 6
40 | 1,6666,67
4 |
40